

1. A spacer configured to be secured to a panel of a predetermined thickness with a bore, comprising:

a first piece having a generally tubular body portion of a preselected height, H_1 with a first end and a second end, the second end having a preselected included angle, θ with respect to an axis that passes through a bore of the first piece;

a second piece having a first end, an annular ridge which is located adjacent to the first end and a flange which is located adjacent to the annular ridge that extends radially outwardly from the axis, the first end having a preselected height, H_3 , a preselected included angle, θ with respect to the axis and a seat which is adapted to receive the head of a fastener; and

wherein the second end of the first piece is sandwiched between the first end of the second piece and the annular ridge.

2. The spacer of claim 1 wherein H_3 has a height from about 20% to about 40% of the height of H_1 .

3. The spacer of claim 1 wherein the preselected included angle, θ has a value from about 80 degrees to about 130 degrees.

4. The spacer of claim 1 wherein the preselected included angle, θ has a value of about 180 degrees.

5. The spacer of claim 1 wherein the flange is secured to the panel with an effective amount of an adhesive.

6. The spacer of claim 1 wherein the first end of the first piece is secured to the panel by curling the first end of first piece into the panel.

7. The spacer of claim 1 wherein the flange has a preselected shape selected from the group consisting of a circle, an oval and non-circular shapes.

8. A spacer configured to be secured to a panel of a predetermined thickness with a bore, comprising:

a first piece having a generally tubular body portion of a preselected height, H_1 with a first end and a second end, the second end having a preselected included angle, θ with respect to an axis that passes through a bore of the first piece;

a second piece having a first end, an annular ridge which is located adjacent to the first end and a flange which is located adjacent to the annular ridge that extends radially outwardly from the axis, the first end having a preselected height, H_3 , a preselected included angle, θ with respect to the axis and a seat which is adapted to receive the head of a fastener;

wherein the second end of the first piece is sandwiched between the first end of the second piece and the annular ridge; and

wherein H_3 has a height from about 20% to about 40% of the height of H_1 .

9. The spacer of claim 8 wherein the preselected included angle, θ has a value from about 80 degrees to about 130 degrees.

10. The spacer of claim 8 wherein the preselected included angle, θ has a value of about 180 degrees.

11. The spacer of claim 8 wherein the flange is secured to the panel with an effective amount of an adhesive.

12. The spacer of claim 8 wherein the first end of the first piece is secured to the panel by curling the first end of the first piece into the panel.

13. The spacer of claim 8 wherein the flange has a preselected shape selected from the group consisting of a circle, an oval and non-circular shapes.